



Northeastern University
College of Engineering
Cooperative Education

2020 Co-op Awards

Award Recipients

Bioengineering

Jaclyn Long
Noah Miller

Chemical Engineering

Michael Nguy
Samantha Roman

Civil and Environmental Engineering

Chase Bivona
Taylor Furbish

Electrical and Computer Engineering

Grace Carroll
Lamia Farah
Omar Tuffaha
Diego Alvarado, Grad

Mechanical and Industrial Engineering

Thomas Cerier
Abhjeet Ajay Durve, Grad
Trevor Fick
Taylor Frey
Laura Hobbs
Botakoz Koshkaro
Varun Senthil, Grad

Jaclyn Long, Bioengineering

1st Co-op: Wyss Institute for Biologically Inspired Engineering, Boston, MA

2nd Co-op: Editas Medicine, Cambridge, MA

3rd Co-op: Harvard Medical School, Boston, MA



While attending Northeastern, Jaclyn performed above and beyond in her co-op experiences and also her service to the Bioengineering Department and the University.

She began working at Wyss Institute developing a human lymph node-on-a-chip. On her second co-op, at Editas Medicine, she learned how CRISPR is used to edit DNA and engineer immune cells. Jaclyn self-developed her third research experience at Harvard Medical School working in the Sharpe Lab on cancer immunology. Academically she has maintained at 3.9 GPA and has managed to hold leadership positions in SWE, BMES and the Student Activities Council. Dr. Sharpe wrote, "Jaclyn is an extremely talented young scientist with tremendous potential. I have no doubt that she will continue to be highly successful. I believe that she possesses a level of creativity, energy, and rigor that will enable her to excel as a scientist." Jaclyn was accepted to Harvard Medical School to pursue a Ph.D. in immunology.

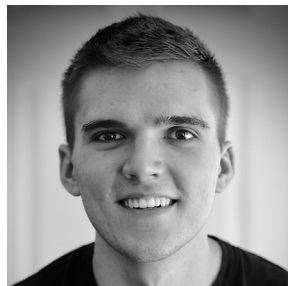
-Karen Kelley, Bioengineering Co-op Coordinator

Noah Miller, Bioengineering

1st Co-op: Sappi Fine Paper, Westbrook, ME

2nd Co-op: Selux Diagnostics, Boston, MA

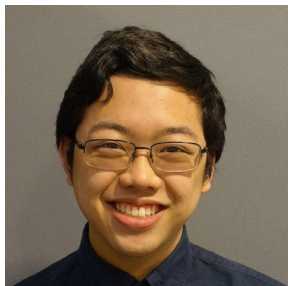
3rd Co-op: Selux Diagnostics, Boston, MA



Noah worked at Selux Diagnostics where the company is developing novel diagnostic systems that rapidly determine personalized therapies for patients with sepsis and other infections. Working there for two semesters, he became a very important contributor to the prototype design of the

first prototype Rapid Antimicrobial Susceptibility machine. His supervisor wrote, "Noah has been a vital member of the Selux team, even choosing to do his Capstone project to prototype an important component of our next-generation product. Selux wouldn't be where it is today without him! Noah is such a uniquely talented person. His positive attitude, curiosity, intelligence, and hard work ethic really set him apart. We were delighted when he decided to come back to us for another co-op rotation and even more excited when he chose to join us full-time after graduation!"

-Karen Kelley, Bioengineering Co-op Coordinator



Michael Nguy, Chemical Engineering

1st Co-op: Repligen Corporation, Waltham, MA

2nd Co-op: uniQure, Lexington, MA

3rd Co-op: Solid Biosciences, Cambridge, MA

Michael's co-op accomplishments have been about self-growth. Learning how to work with others in a professional manner and managing multiple projects and deadlines has prepared Michael for multiple cross-campus collaborations such as the AIChE-BMES Co-op Career Fair and joint meetings between AIChE and groups like BMES, ISPE, SWE, The Galante Program, and Behind the SMILE. Michael's more tangible co-op accomplishments include collaborating with multiple teams to cross-train them, harmonize scheduling and materials/equipment usage, and facilitating communication between groups to better plan experiments. Over three co-ops, Michael has completed dozens of experiments that have not only helped him learn, but also helped him develop processes for the production of adeno-associated virus (AAV) that would end up in a large scale-manufacturing setting to produce clinical trial material. This has given Michael a wide scope of the entire gene therapy manufacturing process that will hopefully better prepare him for industry and help his next company.

-Julie Nguyen, Chemical Engineering Co-op Coordinator



Samantha Roman, Chemical Engineering

1st Co-op: SAPPI North America, Westbrook, Maine

2nd Co-op: C.R. Bard, Inc. /

Davol, Inc., Warwick, Rhode Island

3rd Co-op: Cambridge Crops, Somerville, Massachusetts

Sam's time at Northeastern has been well-spent: not only has she excelled in the rigorous chemical engineering curriculum, but she has excelled in her field in three very different co-op experiences. Her first role was in Westbrook, Maine working for SAPPI as a Process Engineer, here she gained exposure to manufacturing and troubleshooting products based on customer feedback leading to her own independent project work. Sam's second co-op brought her to Rhode Island, working for Bard/Davol in the research and development of medical devices. For her final co-op experience, Sam accepted an offer with Cambridge Crops, a small start-up working to increase the shelf-life of perishable foods. Sam was the first co-op student to be hired by Cambridge Crops and an integral member of their team; her outstanding work at Cambridge Crops has led her to receive and accept an offer of employment after graduation!

-Jake Walker, Chemical Engineering Co-op Coordinator

Chase Bivona, Civil Engineering

1st Co-op: Odeh Engineers, Inc., North Providence, RI
2nd Co-op: Siegel Associates, Inc., Newton, MA
3rd Co-op: S&A Stairs, Braeside, Australia



Growing up in a family with a custom stair building business, Chase has an intuitive sense for how building components go together. Studying structural engineering was an obvious choice and Chase used his co-ops to build and hone his technical skills. In his two structural engineering design roles, he learned to field-scan buildings to develop models in Revit and gained the ability to assess and evaluate structural designs for stability and constructability. With his new skillset, he self-developed an opportunity in Australia to learn complex stair production and management techniques that he hopes will advance the future of Hardwood Design Inc. I have been most impressed by the professional maturity and growth that Chase has exhibited over the past four years. Chase’s employer remarked that he is “inquisitive, practical, and focused. He thinks hard about what the problem is and what resources and references are available to solve it.”

-Jessica Ormsby, Civil & Environmental Engineering Co-op Coordinator

Taylor Furbish, Environmental Engineering

1st Co-op: Environmental Partners Group, Quincy MA
2nd Co-op: University College Cork, Centre for Marine and Renewable Energy, Cork Ireland
3rd Co-op: ESS Group, Waltham MA



Taylor’s passion for the environment is palpable and co-op allowed her to advance her technical skills and knowledge in the environmental sector. Taylor’s two co-ops in engineering consulting allowed her to design existing condition and concept plans for environmental, solar, and coastal engineering projects using AutoCAD and ArcGIS. In those positions, Taylor had the opportunity to complete fieldwork including data collection for water, sewer, solid waste, and stormwater projects to inform her design work. As a research intern in Ireland, she completed extensive beach morphology and shoreline protection investigations, including wave sensor deployment, beach profile surveying, and sediment analysis. One co-op employer remarked that “her strengths included teamwork, a positive attitude, ability to learn, ability to translate guidance given about tasks into completed work products, and independent effort.” Taylor plans to build on knowledge gained at Northeastern by obtaining a MS in Environmental Science from the University of Edinburgh this fall.

-Jessica Ormsby, Civil & Environmental Engineering Co-op Coordinator



Grace Carroll, Electrical and Computer Engineering

1st Co-op: Bose Corporation, Boston, MA

2nd Co-op: Apple, Inc., Cupertino, CA

Grace Carroll is an Electrical and Computer Engineering major who has completed co-ops at Bose Corporation and Apple, Inc. In both experiences Grace sought out challenging work at demanding companies developing consumer electronics. At Bose she developed a novel volume and tone control software model for headphones which Bose decided to patent. At Apple she helped to design changes to the iPhone 11 Pro camera architecture. Additionally in her 4 years at Northeastern University, Grace has worked in the NU Augmented Cognition Lab as a research assistant. She is a member of SWE and IEEE. Grace approaches everything with confidence and purpose which will serve her well in her future endeavors.

-Brian Albrecht, Electrical and Computer Engineering Co-op Coordinator



Lamia Farah, Electrical and Computer Engineering

1st Co-op: Systems & Technology

Research LLC, Woburn, MA

2nd Co-op: NanoView Biosciences, Boston, MA

3rd Co-op: RKF Engineering Solutions, LLC, Bethesda, MD

Lamia thrives on challenges and always accomplishes more than what was asked to her. To demonstrate, her supervisor stated “If I could give Lamia a 6 out of 5 I would. She works incredibly well in an agile software development team; she is proactive and anticipates need. She shares ideas readily and is highly independent.” Lamia took full advantage of her 3 co-ops while trying different industries, she also gained a wide range of technical skills. During her time at Northeastern, Lamia volunteered her time for co-op and departmental events. She has been an advocate for women’s advancement in engineering. Her positive attitude and warmth will be missed tremendously.

-Iraz Medhi, Electrical and Computer Engineering Co-op Coordinator

Omar Tuffaha, Computer Engineering and Computer Science

1st Co-op: Curriculum Associates, North Billerica, MA

2nd Co-op: TripAdvisor, Boston, MA



Omar consistently took advantage of opportunities available to him while on co-op and during his time at Northeastern. Omar began his co-op experience at Curriculum Associates as part of an agile scrum team focused on the development of new features for i-Ready, an online learning environment for grades K-12. For his second co-op, Omar broke up his time to benefit from two companies. First, Omar spent 3 months at Verizon Connect, where he was part of a small team of engineers focused on improving fleet management. Subsequently, Omar worked for 4 months at TripAdvisor, where he collaborated with an interdisciplinary team on projects including full-stack web development, code review, and project management. Omar's supervisors commented on his tireless work ethic, tenacity in tackling problems, and maturity brought to the non-technical aspects of his positions. Beyond co-op, he is a member of the Honors Program, Tau Beta Pi, Eta Kappa Nu, works as a Teaching Assistant, and is engaged in intramural sports. Omar embodies the type of student that is an asset to not only the co-op program, but the University as a whole.

-Josie Flanagan, Electrical and Computer Engineering Co-op Coordinator

Diego Alvarado, Electrical Engineering

Grad Co-op: Vivonics, Bedford, MA



Diego exemplified professionalism and dedication over the course of his co-op. Soon after he began working at Vivonics, an experienced team member left the company, and Diego impressed his coworkers by stepping up and ensuring work was completed with minimal supervision. During this time, he demonstrated confidence and leadership ability. When new employees were hired, he trained them and contributed to the smooth completion of ongoing projects. Diego's supervisor also commended his openness to learning and feedback, excellent communication skills and practices, and positive attitude, saying "I am sure he will do great things." Diego truly displayed the learning attitude, technical ability, and work ethic that exemplify the co-op program. He is looking forward to graduating this semester and is searching for full-time opportunities.

-Rachel Walsh, Electrical and Computer Engineering Co-op Coordinator



Thomas Cerier, Mechanical Engineering

1st Co-op: SeLux Diagnostics, Cambridge, MA

2nd Co-op: Specialized, San Jose, CA

3rd Co-op: Apple, Cupertino, CA

Thomas' focus and commitment to both his academics and leadership at NU is impressive. To say that Thomas is a well-rounded student is an understatement. He carries a perfect 4.0 GPA, is a 2x Ferretti Scholarship Award recipient for academic excellence, received the President's Award, is a member of the IDEA and Generate management teams, leads the Galante Program Student Advisory Board, is a Husky Ambassador and program coordinator for NU|ACES, and is an avid cyclist. It was his ambition and passion for cycling that secured his 2nd co-op at Specialized in CA. His supervisor at Apple stated, "Thomas was internally motivated and driven to succeed" while he led a project involving stakeholders from China and Canada. Thomas mentors younger students and will undoubtedly continue to mentor aspiring engineers as he begins his professional career. He will certainly be a valued alumnus to NU.

-Alison Nogueira, Mechanical & Industrial Engineering Co-op Coordinator



Abhijeet Ajay Durve, Industrial Engineering

Grad Co-op: ITW Polymers, Danvers, MA

Abhijeet self-developed his co-op with ITW Polymers, where he focused on implementing 6S lean techniques and packaging standardization for their Devon product line. Abhijeet's major impact was in replacing two of their packaging lines with new equipment worth \$250,000 without slowing down production. Abhijeet was given full responsibility for researching their options and installing the new system which garnered rave reviews from not only his new supervisor but the entire manufacturing team. In addition to his strong technical skills, Abhijeet developed strong communication skills, integrating himself into this small, family oriented manufacturing company, gaining the trust of managers and crew alike with his professional, yet collegial approach.

-Robin MacIlroy, Mechanical & Industrial Engineering Co-op Coordinator

Trevor Fick, Industrial Engineering

1st Co-op: Beth Israel Deaconess Medical Center, Boston, MA
2nd Co-op: Walt Disney World Parks and Resorts, Lake Buena Vista, FL
3rd Co-op: Ernst & Young, LLP, New York, NY



During his time at Northeastern, Trevor successfully explored a range of industries and completed co-ops within healthcare, hospitality and finance. Trevor's first co-op was at Beth Israel Deaconess Medical Center where he utilized lean principles to develop root cause analysis and countermeasures on several hospital-wide projects. Building upon his IE skillset, Trevor's second co-op was at Walt Disney World in Florida where he performed studies to assess performance and provide data driven recommendations as well as apply analytical methodology to quantify guest experiences. At Disney, Trevor was praised for his adaptability, problem-solving skills, and ability to balance multiple projects and implement feedback. Trevor's final co-op was at Ernst & Young, LLP in New York City in a technology advisory role. Following graduation, Trevor will join IQVIA as an Associate in their Market Access Strategy Consulting Group. In addition to his co-op experiences, Trevor has served as a Husky Ambassador, MIE Co-op Career Peer and Vice President of his fraternity, exhibiting strong leadership skills and embodying Northeastern's spirit of community.

-Sarah Mockler, Mechanical & Industrial Engineering Co-op Coordinator

Taylor Frey, Mechanical Engineering

1st Co-op: Hasbro, Pawtucket, RI
2nd Co-op: Walt Disney World, Orlando, FL
3rd Co-op: Boston Engineering, Waltham, MA



When Taylor entered the University her goal was to work at Disney as an engineer, designing rollercoasters. She used her co-op searches to complete research on opportunities that could help her reach her goals, gathering advice through informational interviews, and working at places that built her skills for this career choice. Her second co-op was at Disney, as a cast member, to try and get into the professional engineering internship program. Although she was successful, she ultimately determined Disney was not the right fit after all. After making this decision she pivoted quickly; completing her final co-op at Boston Engineering. Her manager described her as "always the first to volunteer for any task, no matter how menial. Her attitude was infectious, and she was always positive and upbeat about whatever she was doing on a project." It is this inquisitiveness and positive attitude that has led to her join their team as a full-time engineer after graduation!

-Heather Carpenter-Oliveira, Mechanical & Industrial Engineering Co-op Coordinator



Laura Hobbs, Industrial Engineering

1st Co-op: SourceOne Inc., Boston, MA

2nd Co-op: SAP Innovation Center, Palo Alto, CA

3rd Co-op: Roland Berger, Boston, MA

Laura has been a great representative for the IE program while on co-op. Professional and personable, she has demonstrated the depth of the IE program and the various avenues that students can take an IE degree. Laura completed three diverse co-ops including one out of region experience in California. Facing many challenges head-on, Laura's positive demeanor and "can do attitude" helped her excel in each of her co-ops, which is evident in her offer to return full time to Roland Berger after graduation. Additionally, Laura was often called upon by the co-op department as an example for those searching for their first co-op. She participated in many student panels for the MEIE2000 class and was selected as a career peer for the 2019-2020 year.

-Rebecca Webb, Mechanical & Industrial Engineering Co-op Coordinator



Botakoz Koshkarova, Mechanical Engineering

1st Co-op: Insulet Corporation, Billerica, MA

2nd Co-op: Daimler AG, Stuttgart, Germany

3rd Co-op: Amazon Robotics, North Reading, MA

Bota has embraced the true nature of our co-op program to pursue her interests, explore industries and roles, and learn about different work cultures. Bota has become a global engineer through work experiences in both the US and Germany. Her co-ops have spanned the medical device, automotive, and robotics industries in both R&D and Manufacturing roles. Bota applied a strong work ethic, excellent communication skills, a positive attitude, and excellent problem-solving skills to make lasting impacts at each of her three co-ops. All three of her supervisors described Bota as an avid learner and consummate professional who would make an invaluable addition to any engineering team. Apple is lucky to have Bota, which is where she will be working full time after graduation.

-Nathanial Ziegler, Mechanical & Industrial Engineering Co-op Coordinator

Varun Senthil, Industrial Engineering

Grad Co-op: Oak Ridge Associated Universities,
Oak Ridge, TN



Varun self-developed his co-op with the Atmospheric Radiation Measurement Data Center at Oak Ridge National Labs, by proactively contacting the lab directly and completing their thorough application process. A tribute to his success on the job, he was able to extend his 4 month contract to 8 months. Varun’s role included system architecture, bash scripting and SQL as well as streamlining a process pipeline with Python. He also co-wrote a research paper soon to be published, entitled “Benchmarking Cassandra vs Timescale BD for High Volume Data Application”. Varun learned the importance of documentation, workflow management, and working with a team. From a manufacturing engineer with no computer background, Varun honed his skills to become a fully functional database administrator and a data analyst. Varun was also a tremendous advocate for Northeastern co-op students at Oak Ridge, helping to organize live webinars with Oak Ridge staff to connect more Northeastern students to Oak Ridge opportunities.

-Robin MacIlroy, Mechanical & Industrial Engineering Co-op Coordinator

About the Awards

The COE Co-op Awards are presented to students who were selected by co-op faculty in recognition of their professional development and achievements resulting from their co-op experiences. We honor these students and are proud to share in their accomplishments. We congratulate and wish them the best of luck as they step into the next phase of their professional careers.

***Congratulations from the College of Engineering Departmental
Co-op Team!***

Lorraine Mountain
Laura Grange
Kimberlin Humphrey-Kiger

***BIOENGINEERING AND
CHEMICAL ENGINEERING***

Karen Kelley
Stephanie Kirby
Laura Kissane
Julie Nguyen
Max Sederer
Jake Walker

***ELECTRICAL AND
COMPUTER ENGINEERING***

Brian Albrecht
John DiSessa
Josie Flanagan
Steve Johnson
Jackie Josselyn
Alison Joyce
Iraz Medhi
Rachel Walsh

***CIVIL AND
ENVIRONMENTAL ENGINEERING***

Cheryl Arruda
Jessica Ormsby

GLOBAL ENGINEERING

Sally Conant
Kristina Kutsukos

***MECHANICAL AND
INDUSTRIAL ENGINEERING***

Alison Nogueira
Mike Ahern
Brevin Anderson
John Bleakney
Peter Cardillo
Heather Carpenter-Oliveira
Kristina Hals
Robin MacIlroy

Sarah Mockler
Tyler Lehren
Georgia Looney
Lucy Siying Lu
Thomas Simers
Rebecca Webb
Nathanial Ziegler

LVX
VERITAS
VIRTUS